

Claims

[c1] What is claimed is:

1. A missile system for breaching reinforced concrete barriers utilizing a plurality of hinged explosively formed projectile warheads, the missile system comprising:
 - a missile body for transporting the hinged explosively formed projectile warheads to a target;
 - a plurality of hinges for attaching the hinged explosively formed projectile warheads to the missile body;
 - wherein the hinged explosively formed projectile warheads are initially folded against the missile body prior to a launch of the missile system; and
 - wherein the hinged explosively formed projectile warheads unfold away from the missile body to a deployed position after the launch of the missile system.

[c2] 2. The missile system of claim 1, wherein the hinged explosively formed projectile warheads comprises a high density liner material.

[c3] 3. The missile system of claim 1, wherein the deployed position comprises a hinge angle formed by each the hinged explosively formed projectile warheads with respect to the missile body.

- [c4] 4. The missile system of claim 2, wherein the hinges comprise a plurality of hinge points at which the hinge angle is set.
- [c5] 5. The missile system of claim 3, wherein the hinge angle is 90 degrees.
- [c6] 6. The missile system of claim 3, wherein the hinge angle ranges between approximately zero degree and 90 degrees.
- [c7] 7. The missile system of claim 3, wherein the missile system operating with a small value for the hinge angle produces a small hole in a reinforced concrete target.
- [c8] 8. The missile system of claim 3, wherein the missile system operating with a large value for the hinge angle produces a large hole in the reinforced concrete target.
- [c9] 9. The missile system of claim 1, wherein a release of the hinged explosively formed projectile warheads from the missile body is initiated prior to an impact at the reinforced concrete target.
- [c10] 10. The missile system of claim 8, wherein the release initiates a time delay fuzing mechanism for a plurality of explosives in the hinged explosively formed projectile warheads.

- [c11] 11. The missile system of claim 1, wherein the plurality of hinged explosively formed projectile warheads comprise four hinged explosively formed projectile warheads.
- [c12] 12. The missile system of claim 1, wherein the number of the plurality of hinged explosively formed projectile warheads ranges between 2 and 8 warheads.
- [c13] 13. The missile system of claim 1, wherein a length of each hinged explosively formed projectile warhead ranges between approximately 150 mm and 450 mm.
- [c14] 14. The missile system of claim 1, wherein a diameter of each hinged explosively formed projectile warhead ranges between approximately 105 mm and 120 mm.
- [c15] 15. The missile system of claim 3, wherein the high density liner material is tantalum.